

A NEW STEIRODONT KATYDID FROM COLOMBIA (ORTHOPTERA: TETTIGONIIDAE)¹

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ABSTRACT: *Stilpnochlora acanthonotum*, new species, an unusual steirodont katydid from Colombia, is described and figured. Although sharing most generic characters with the genus *Stilpnochlora*, this species has several discordant features, including large thornlike spines on the lateral carinae of the pronotum, bilaterally symmetrical inflated tympanal shields, and large thornlike spines on the dorsal margins of the hindtibiae.

Emsley (1969) revised the phaneropterine katydid tribe Steirodonti in which he recognized 50 species in 3 genera. *Stilpnochlora*, *Steirodon*, and *Cnemidophyllum*. Characters he used to define the genera included the presence or absence of a procoxal spine, the shape and configuration of the frontal and vertexial fastigia, and various modifications of the external female genitalia (see Table 1). This arrangement compromised the previous recognition of several genera which were reduced to subgenera. The merits and problems of Emsley's hierarchical arrangement will not be discussed here, but the new species of steirodont katydid described below has characters that are intermediate among the three genera. Unfortunately, this otherwise distinctive species is known only from three males and a female without an abdomen. If an intact female were available, the generic affiliations of this species would be clarified. Interestingly, the species was recently illustrated by Linsenmaier (1972: 105, Fig. 2) but not identified. I tentatively place it in the genus *Stilpnochlora* since it shares more characters with that genus than the other two genera.

The holotype and one paratype have been donated from my personal collection to the National Museum of Natural History, Washington, D.C. (NMNH). I thank Drs. Francisco Cerda, Instituto de Zoología Agrícola, U.C.V., Maracay, Venezuela (IZA) and David Ragge, British Museum (Natural History) (BMNH) for loan of the other specimens.

Stilpnochlora acanthonotum, new species

Holotype. ♂ Colombia: *Narino*. Tuquerres XI, 20-26, 1969 (Coll. A. Wolffhuegel) [NMNH].

Description. Head. Eyes globose, prominent, protrusive, situated high on face about one eye diameter above genal suture. Interocular width equal to one eye diameter. Vertexial fastigium laterally compressed, anteriorly bluntly rounded, dorsally sulcate. Frons weakly

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inflated in lateral aspect. Frontal fastigium trigonal in frontal aspect; apex bluntly rounded, nearly in contact with vertexial fastigium (Fig. 1).

Thorax. Lateral carinae of pronotal disc strongly dentate, elevated, and dorsolaterally flared; in dorsal view, dentition of lateral carinae consisting of 3 large thornlike spines: anterior-most spine short, stout, directed anteriorly; second spine 1.3X longer than spine 1, directed posterolaterally; spine 3 very prominent, arising just posterior to midpoint of lateral carina, 3.0X longer than spine 1, directed dorsolaterally, its trailing edge studded with a series of about 6 sharp, narrow spines. Pronotal disc divided by a shallow anterior sulcus between spines 1 and 2 and across posterior quadrant by a deep posterior sulcus. Posterior margin of disc nearly truncate, armed with one median and two small lateral nodes (Fig. 2). Lateral lobe of pronotum deeper than long (Fig. 3). Meso- and metasternal lobes apically arcuate, bluntly pointed; mesosternal lobes not extending to anterior margin of metasternum.

Legs. Procoxal spine absent. Anterior and posterior tympana equally concealed beneath bilaterally symmetrical auritate shields (Fig. 4). Legs slender, lacking foliaceous or expanded lobes; metatibia in cross-section forming an isosceles triangle. Ventral margins of fore and midfemora unarmed; of hindfemora armed with 5-7 small spines. Apex of midtibia armed with two medial and one lateral spurs. Hindtibia prominently armed with about 20 sharp triangulate spines on each posterior margin (Fig. 7). Lateral genal lobes of hindfemur armed with a large, sharp, dorsal spine and slightly shorter ventral spine.

Wings. Tegmen ca. 4.3X longer than wide; costal margin weakly inflated anteriorly; otherwise sides subparallel, apically rounded. Stridulatory file with 170 teeth; 37.7 teeth/mm. Veins bordering posterior area of tegmen variegated, a network of many cross-veins. Hindwings in repose barely exposed apically, if at all.

Abdomen. Tenth tergite truncate, not at all produced. Cercus cylindrical, gradually incurved, terminating in a single tooth (Fig. 5). Subgenital plate spatulate, with a shallow median keel, apical margin bearing two nonarticulating pseudostyles (Fig. 6). Internal genitalia membranous, lacking sclerotized structures.

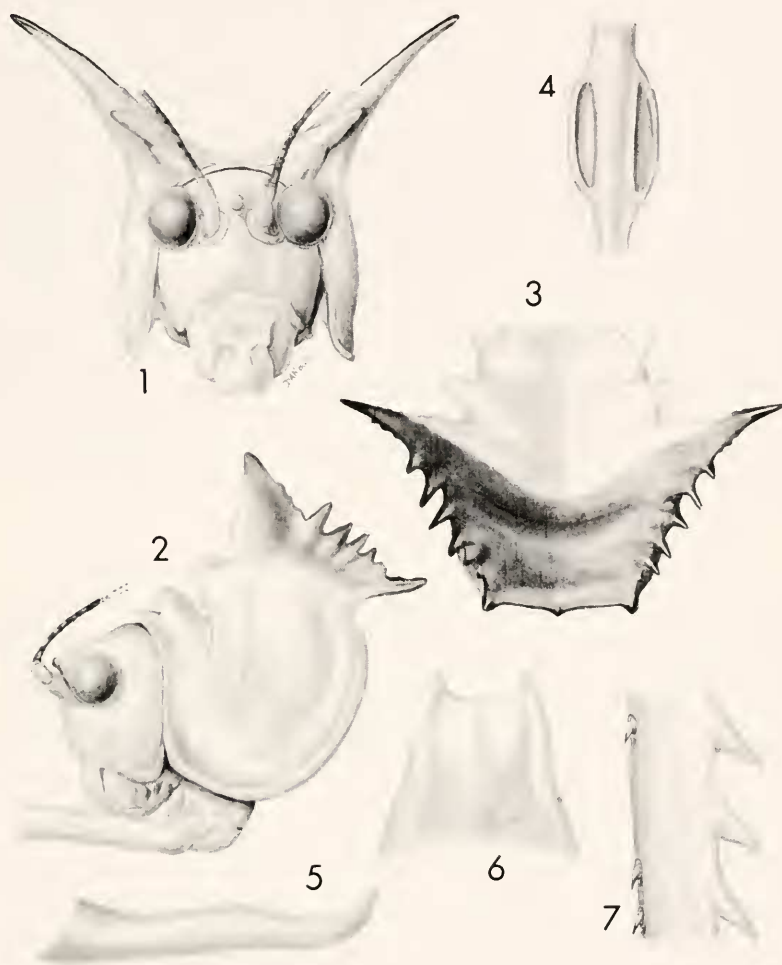
Coloration. Two features are distinctive in the coloration of this species. The tegmina are glossy or waxy chlorophyllous green with black highlight surrounding several of the crossveins. The pronotal disc is tricolored: the area from the anterior margin to the posterior lateral sulcus is green, while the area extending from the large spine to the posterior margin of the disc is reddish brown. The large spine and its accessory spines are piceous.

Etymology. (Gr.) *akantho*, thorn and *noton*, back; referring to the prominent thornlike spines on the disc of the pronotum.

Paratypes. 2 ♂♂, 1 ♀. COLOMBIA: *Narino*, Ipiales (frontier with Ecuador) XI, 15-20, 1969 (A. Wolffhuegel) 1 ♂ [NMNH]; *Valle*, Central Anchicaya 400 mts. XII-27-1978 (V.A. Lattke) 1 ♂ [IZA]. ECUADOR: Paramba 1898 (Purch. from Rosenberg) 99-268 1 ♀ [BMHN].

Measurements. (means). Length (head to apex of tegmen) 79mm; length pronotal disc 11mm; posterior width pronotal disc 8mm; length posterior femur 34mm; width posterior femur 3mm; length tegmen 69mm; width tegmen 16mm.

Relationships. In Emsley's (1969) key to the genera of the Steirodontini, *acanthonotum* keys out to *Stilpnochlora*, although the male cercus is apically armed with only one tooth, not two as in all other species of *Stilpnochlora*. Like other *Stilpnochlora* species, it lacks the procoxal spine and foliaceous expansions on the mid- and hindtibiae, characters which are well developed in the other steirodontine katydids. One useful character not cited by Emsley is the number of apical spurs on the midtibia. In *Stilpnochlora* species (including *acanthonotum*), only one lateral and two



Figures 1-7. Morphological features of *Stilpnochloa acanthotum*, holotype. 1-3 head and pronotum, 1 frontal aspect, 2 left lateral aspect, 3 dorsal aspect. 4 tympanum, left foretibia, frontal aspect. 5 left cercus, dorsal aspect. 6 subgenital plate, ventral aspect. 7 spines, midsection of dorsolateral margin of hindtibia, lateral aspect.

medial spurs are present. All other steirodontine katydids have two lateral and two medial spurs.

Stilpnochlora acanthonotum is different from other *Stilpnochlora* species in several major respects, however, and in its general appearance, *acanthonotum* is not easily recognized as belonging to the genus. Table 1 reflects some of the differences. Unlike species of *Stilpnochlora*, *acanthonotum* has a unifid, rounded fastigium, large protrusive eyes (eye length is greater than the length of the subocular gena); the apex of the tegmen is rounded, not angulate, and the hindwing does not extend beyond the tegminal apex; the spines on the dorsal margins of the hindtibia are large; and the tympanal shields are inflated and bilaterally symmetrical. The most conspicuous feature of *acanthonotum* is the pronotum. The spines on the lateral carinae are more reminiscent of species of *Cnemidophyllum* or *Steiroidon*. The only species of *Stilpnochlora* to have lateral carinae with teeth is *incisa* (Serville), but these are only weakly or bluntly toothed. The pigmentation on the posterior margin of the disc is characteristic of *Stilpnochlora* species, but similar coloration occurs on the pronotum of *Steiroidon validum* Stal.

TABLE 1. Characters of the steirodont katydids.

character	<i>acanthonotum</i>	<i>Stilpnochlora</i>	<i>Steiroidon</i>	<i>Cnemidophyllum</i>
fastigium/frons				
procoxal spine	absent	absent	present	present
tympanal shields	symmetrical, inflated	asymmetrical	symmetrical	symmetrical
# apical spurs on lateral side of apex of fore-and midtibia	1	1	2	2
spines on lateral carina of pronotal disc	present	absent	absent/present	present
# apical teeth on ♂ cercus	1	2	1	1
processes on tergites VIII/IX, ♀ abdomen	??	absent	present	present

In spite of these differences, it seems most practical for the present to associate *acanthonotum* with *Stilpnochlora*. Characters on the abdomen of female steirodontine katydids are useful in generic assignments. When a complete female of this species is found, these characters should clarify the generic affinities of *acanthonotum*.

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